PA3DZL

432MHZ MOONBOUNCE

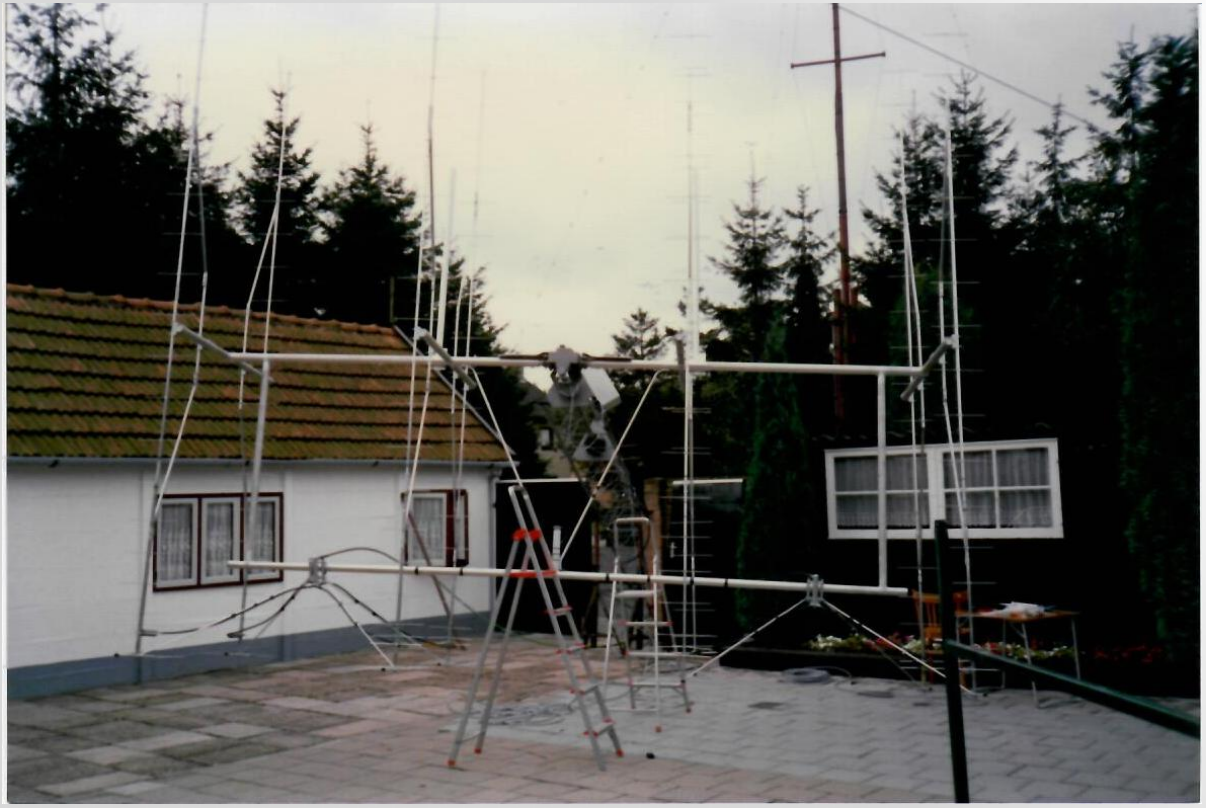
AND WHAT CAN YOU DO

WITH A **SMALL DISH**

HOW I STARTED ON 432MHZ

BUILDING MY **1ST YAGI ARRAY 1987** (1992) : **8 X 24EL - 6.6L YAGIS**

(#119 AND 295 QSOS)



MEMORABLE 1ST QSO

RANDOM JAN DL9KR CALLED ME DURING MY ECHO TESTS ☺

To PA3DZL

Pleasant surprise to interrupt your echo tests and make our first 70cm EME QSO on Sep-12-87 at 2028 UT 432,012 MHZ RST 549.

My locator: JO40de
Ant: 16x20 el DL9KR, open wire feed & phasing
RX: NE75083 front end
TX: 1,5 KW RF at antenna out of YL1050 cavity amp.

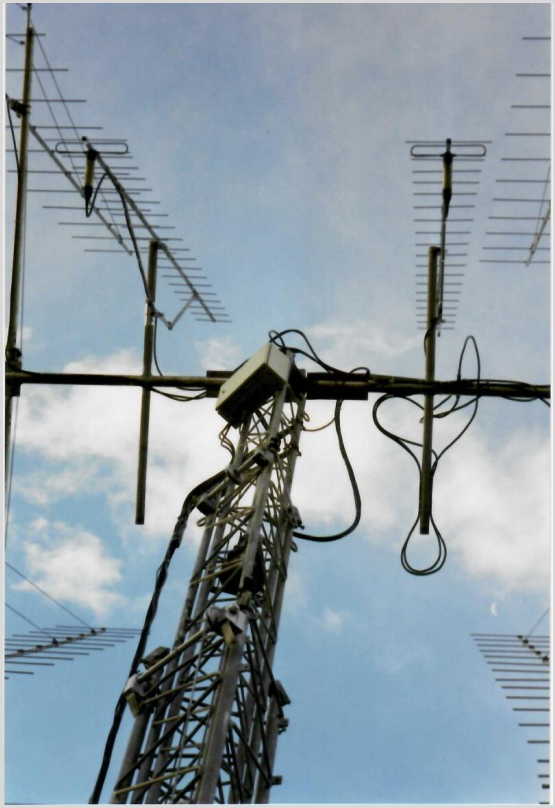
Heard you various times during the weekend and always with good signals! Good first show.

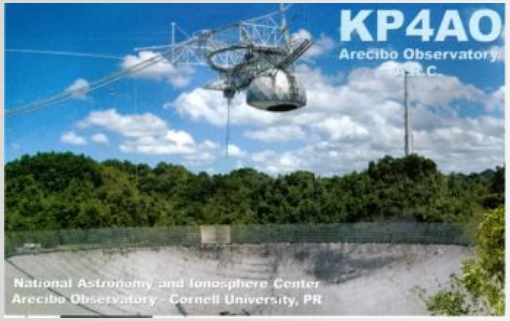
Bcnu often & 73,

Jan
DL9KR

Another MEMORABLE QSO KP4I Oct.17th 1987

2 X 21EL. F9FT
1999 – 2005





38EL. ARECIBO
KP4AO IN SSB
APRIL 2010

4 x 38EL. 13L M2 yagis
2010 - 2012

BUDGET / PERFORMANCE CALCULATION

Dish	Gain dBd	Yagi array	Gain dBd
3.0m	19.1	4 x 12el ca. 3.0L	19.3
3.7m	21.0	4 x 17el ca. 5.5L	21.1
4.0m	21.6	4 x 19el ca. 6.5L	21.7

In memory of Al, K2UYH : "Why not use your dish for as many different bands as possible"

Dish:

- **Low loss before the preamp ; Much better RX**
- **Fully rotatable feed is a VERY BIG advantage Mr. Faraday ☺**

Yagis:

- **Much less windload**

3.7M DISH WITH **PATCH FEED** USED IN 2017 **@ PA3DZL**

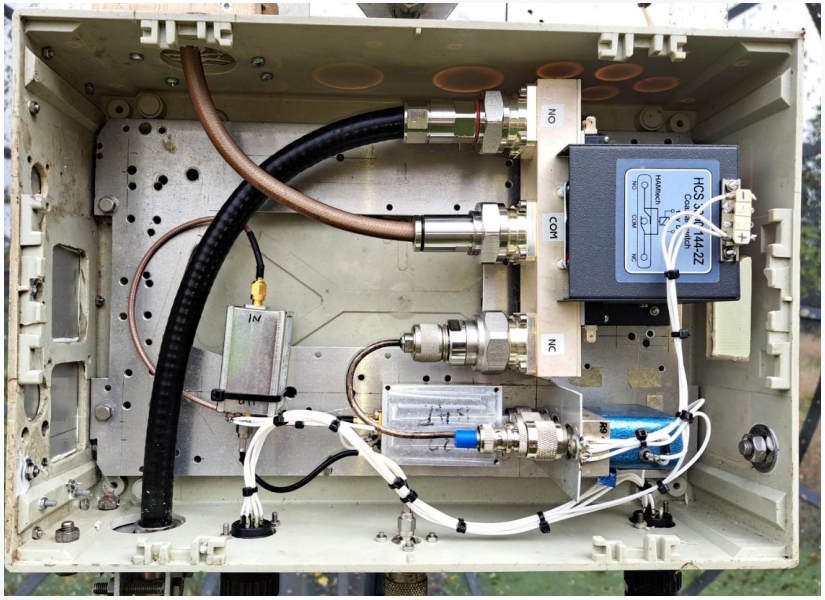
Frank, PA2M measuring RL

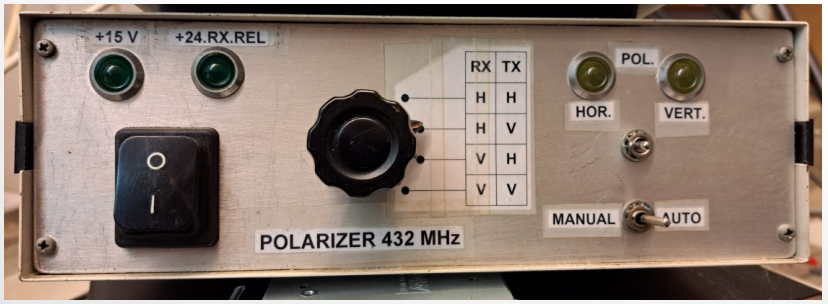
NEW **RING FEED** OK1DFC/OK1CA **+1.5DB** SEPT. 2020

@ **PA3DZL** IN 2021 ENLARGED MY 3.7M DISH TO 4.5M F/D IS 0.27 NOW, THE PERFORMANCE OF A **~4M DISH**

- **Rig 1kW@feed, LNA 0.3dB NF, OK1DFC Ringfeed H+V rotatable 7 sec.**
- **458 QSOs with dish CW and Digi mode**
- **160 initials with dish CW and Digi mode**
- **Smallest station 1 x 23el. Yagi and 50W**
- **Several 1 Yagi stations 100W and more**
- **I hear better than most 4 Yagi stations due to the low system temperature and very little losses before my preamp ! 2 to 4dB**

3.7M DISH @ GERARD PAØBAT



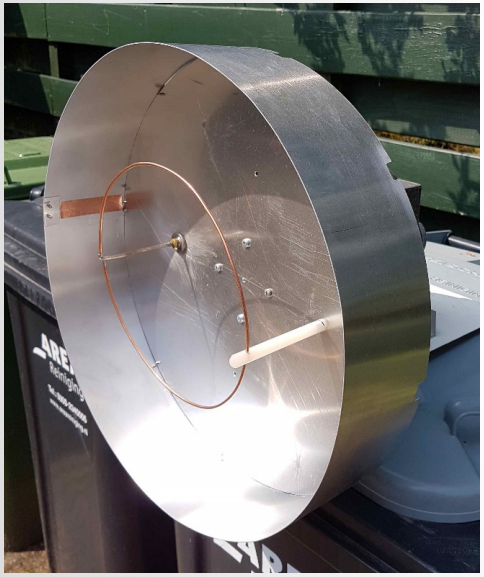


- Rig 1kW@feed, LNA 0.3dB NF, CT1DMK Ringfeed rotatable H + V
- 160 QSOs, 51 DXCCs, smallest station 1Y-200W JT65.

3.2M DISH @ ZDENEK OK1DFC USED DX-PEDITIONS

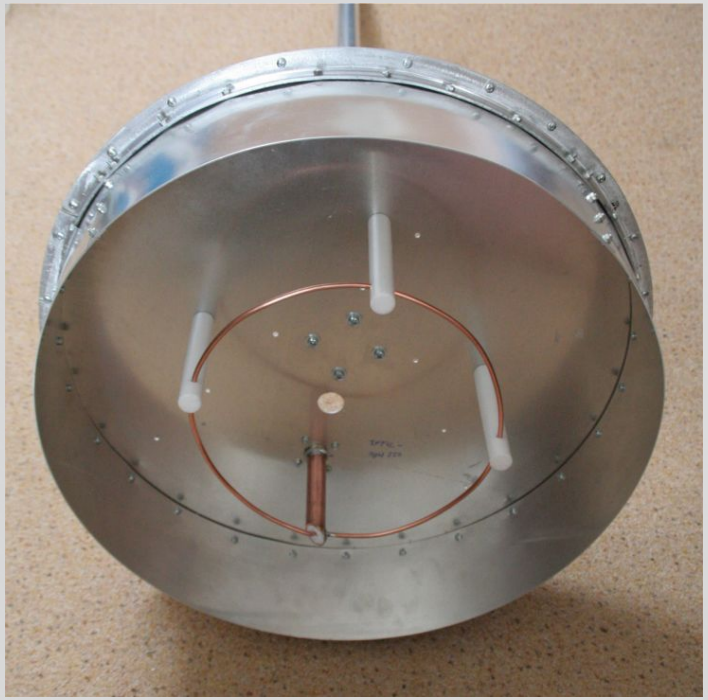
- Rig : 1.2kW SSPA, LNA 0.3dB NF, OK1DFC Ringfeed
- 2009 E77DX DX-ped. 22 QSOs CW and JT65B
- 2011 ISØ/OK5EME DX-ped. 38 QSOs CW and JT65B
- 2014 SP/OK5EME DX-ped. 30 QSOs CW and JT65B
- 2017 EA9LZ DX-ped. 85 QSOs 22xCW and 63xJT65B
- 2018 4U1ITU DX-ped. 32 QSOs CW and JT65B

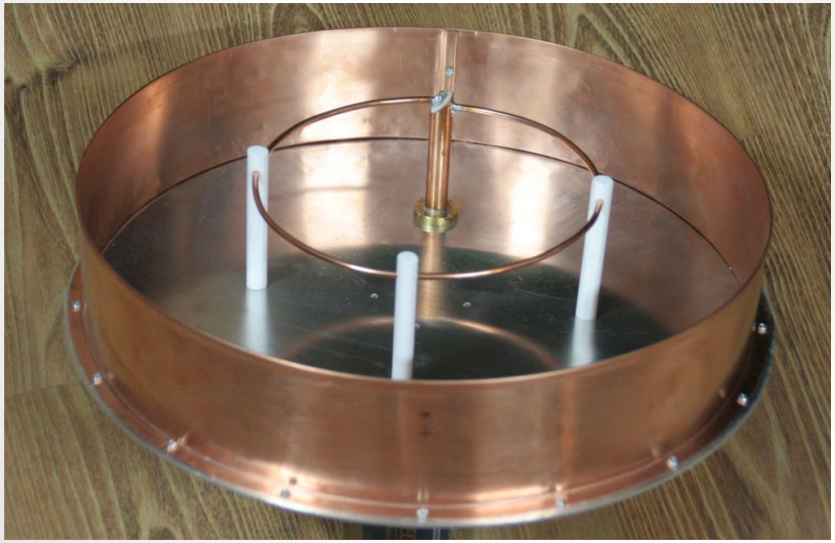
3.0M DISH @ JAN PAØPLY



- Rig: 360W SSPA, LNA 0.4dB NF, OK1DFC Ringfeed + rotator
- 21 QSOs, smallest station 4x13el. And 700W
- Despite high local noise nice results
- Recently Jan installed a 432Mhz bandpass filter, gave a nice improvement !

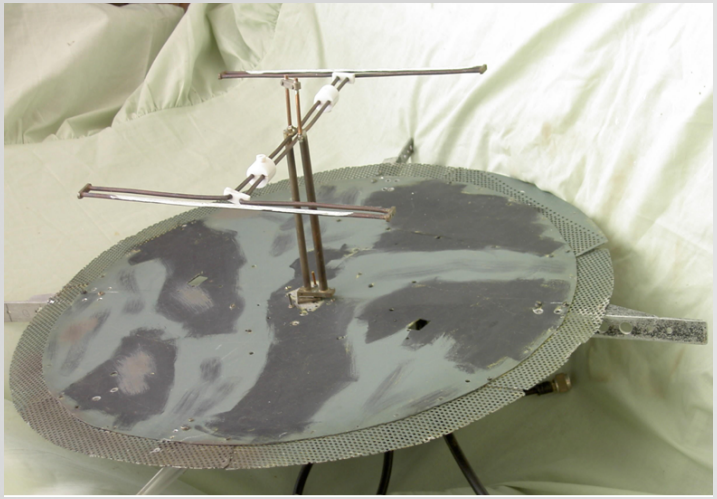
OK1DFC/CT1DMK RINGFEED FOR F/D 0.3-0.45



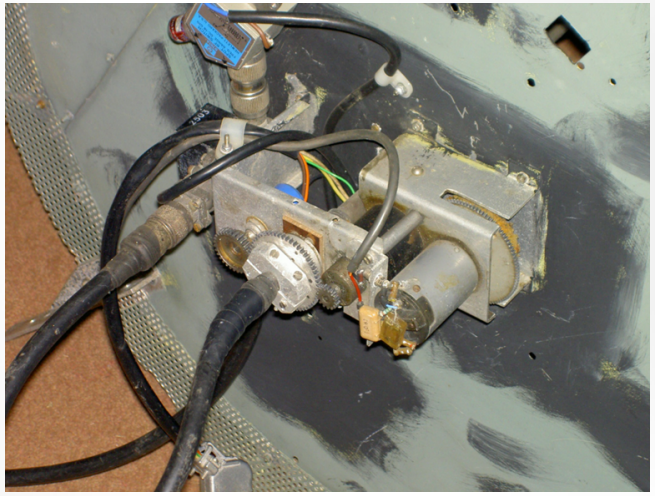


- Diameter 420mm, it is small so not much blockage !
- Dimensions available on the website of Zdenek, OK1DFC

DUAL DIPOLE FEED FOR F/D 0.45 (0.38-0.5)



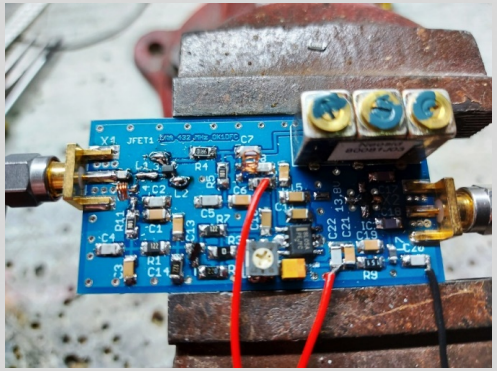
Front view of the feed G3LTF



Rear view showing rotation mechanism

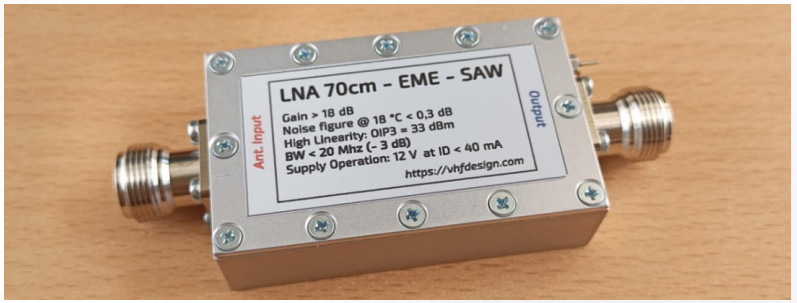
- Diameter of the backplate is 700mm : IT IS LARGE FOR A SMALL DISH * BLOCKAGE *
- Dimensions available @ G3LTF and PA3DZL

PREAMPS 432Mhz narrow band



OK1DFC LNA with Bandpass filter
Do it yourself preamp , info on website

VHF
DESIGN



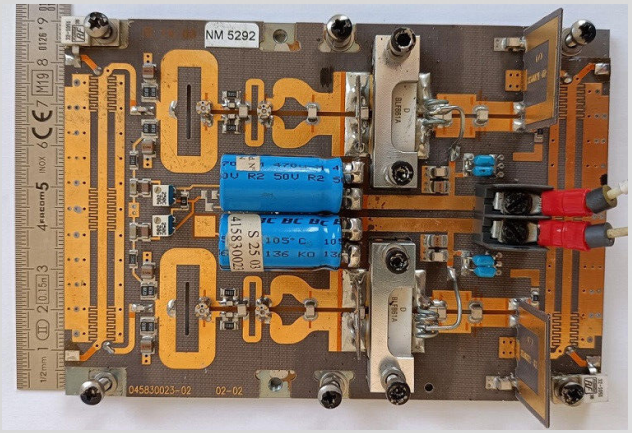
KUHNE
Electronic

Down East Microwave Inc.

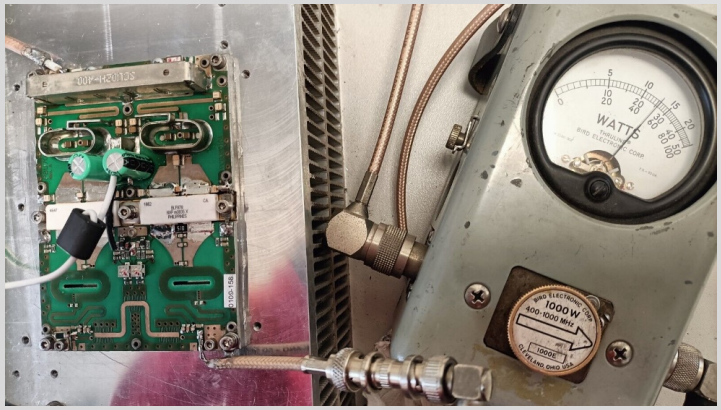
Antennas-Amplifiers

POWER AMPLIFIERS

432Mhz RF-BOARDS



ON EBAY: 250W SSPA : $110 (ITALY)



ON EBAY : 500W SSPA : $130 (ITALY)

BEKO HLV770 or HLV1470

W6PQL 500W or 1kW

LINEARamp Gemini 1kW

IF YOU HAVE A DISH

3M OR BIGGER AND

NOT QRV ON 432MHZ PLEASE LET'S HAVE

FUN ☺

ANY QUESTIONS ?